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| **Sanjay Ghodawat University, Kolhapur**<br>Established as State Private University under Govt. of Maharashtra. Act No XL, 2017 | | 2019-20<br>EXM/P/09/00 |
| **Year and Program: First Year B. Pharmacy 20-21** | **School of Pharmaceutical Sciences** | **Department : Pharmacy** |
| **Course Code: BP102T** | **Course Title :Pharmaceutical Analysis-I** | **Semester – I** |
| **Date: 19-04-2021**<br>**Day: Monday** | **Examination: End Semester** | **Max Marks: 50**<br>**Time: 02:00 pm to 04:00 pm** |

**Instructions**: 1) All questions are compulsory.

2) Figures on the right include full marks.

3) Draw diagrams wherever necessary.

| | | | Marks | Bloom's Level | CO |
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| **Q.1** | | **Objective Type Questions (Any Seven)** | **14** | | |
| | a) | Define normality and molality. | 02 | 1 | 1 |
| | b) | Classify errors with examples. | 02 | 4 | 1 |
| | c) | Give reaction and principle involved in the limit test of chloride. | 02 | 1 | 1 |
| | d) | State Lowry-Bronsted theory of acid and bases. | 02 | 1 | 1 |
| | e) | Define acidimetry and alkalimetry titration. | 02 | 1 | 1 |
| | f) | Give advantages of Dropping Mercury Electrode (DME). | 02 | 1 | 3 |
| | g) | Draw a well labeled diagram of Saturated Calomel Electrode. | 02 | 3 | 4 |
| | h) | What is co-precipitation and post-precipitation? | 02 | 1 | 2 |
| | i) | Give properties of metal ion indicators. | 02 | 1 | 2 |
| | j) | Write the effect of acid on solubility of the precipitate? | 02 | 1 | 2 |
| **Q.2** | | **Long Answers (Answer 2 out of 3)** | **15** | | |
| | a) | Explain theories of acid-base and theories of indicators in acid-base titrations. | 7.5 | 2 | 1 |
| | b) | Explain in details different steps involved in Gravimetric analysis. | 7.5 | 2 | 2 |
| | c) | Give theory of redox titration. Discuss various indicators used in redox titration. Add a note on Dichrometry titration. | 7.5 | 2 | 2 |
| **Q3** | | **Short Answers (Answer 7 out of 9)** | **21** | | |
| | a) | Describe different techniques of analysis. | 03 | 2 | 1 |
| | b) | Give in detail the requirement of primary standard. | 03 | 2 | 1 |
| | c) | What are neutralization curves? Explain neutralization curve between strong acid and strong base. | 03 | 2 | 1 |
| | d) | Discuss in brief solvents and indicators used in non- | 03 | 2 | 2 |

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| | aqueous titration. | | | |
| e) | Give a detail account ofFajan's method. | 03 | 2 | 2 |
| f) | Summarize complexing agents and masking and de-masking agents. | 03 | 2 | 2 |
| g) | Write briefly about iodometric and iodimetric titrations. | 03 | 2 | 2 |
| h) | What are conductometric titrations? Explain various types of conductometric titrations. | 03 | 2 | 3 |
| i) | Explain in brief about Diazotization. | 03 | 2 | 2 |